

### **REMARKS**

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1, 4-11, 14-21, 24-31 and 34-38 were previously pending in this application. Within the Office Action, Claims 1, 4-11, 14-21, 24-31 and 34-38 have been rejected. Accordingly, Claims 1, 4-11, 14-21, 24-31 and 34-38 are currently pending in this application.

#### **Double Patenting**

Within the Office Action, Claims 1, 4-11, 14-21, 24-31 and 34-38 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 4-15, 17-25, 28-39, 41-49, 52-63, 65-73, 76-87 and 89-96 of co-pending Application No. 09/801,138, Claims 1-49 of co-pending Application No. 09/801,072, Claims 1-4, 6-15, 18-27, 30-39 and 42-51 of co-pending Application No. 09/801,076, Claims 1-37 of co-pending Application No. 09/800,592, Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 of co-pending Application No. 09/800,566 and Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 of co-pending Application No. 09/800,607. The Applicant is filing a terminal disclaimer herewith to obviate this double patenting rejection over Application Numbers 09/801,138, 09/801,072, 09/801,076, 09/800,592, 09/800,566 and 09/800,607.

#### **Rejections under 35 U.S.C. §103**

Within the Office Action, Claims 1, 6-11, 16-21, 26-31 and 36-38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,253,188 issued to Witek et al. (hereinafter "Witek") in view of U.S. Patent No. 6,421,661 to Doan et al. (hereinafter "Doan") and further in view of U.S. Patent No. 5,604,772 to Botto et al. (hereinafter "Botto"). The Applicant respectfully disagrees.

Witek teaches a system and method for providing classified ads over the Internet. Internet users can connect to a newspaper web server and central web application server to search for and obtain classified ads. Ad records are stored in ad database servers 20 for providing classified ad records on request to application servers 16. To search the ad records, the search process is divided into two principle parts. The first part includes a system entry and pre-selection sequence, and the second part includes a record selection sequence. [Witek, col. 12, lines 10-13] More specifically, in the first part the user enters the system and specifies the

category of classified ads to be searched. Thereafter, as the user navigates to the respective selected category, the user further specifies a subcategory for the particular category selected. [Witek, col. 12, lines 27-37] The selected category and subcategory pair is identified by a category/subcategory ID 46. The specific parameters are entered as primary selection parameters 60 and as secondary selection parameters 62. The first part of the search process is limited to performing searches based on category, or in other words a hierarchical search. [Witek, col. 13, lines 30-46] During this first *utilization* of the search system of Witek, the user is *only* able to specify a category and subcategory pair. The second part of the search process is limited to performing searches based on entered parameters, in other words a keyword search or parametric search. During this second *utilization* of the search system of Witek, the user is *only* able to perform searches based on entered parameters.

As discussed above, Witek teaches that the user first navigates through the system and specifies a category and subcategory to narrow down the number of records to search. [Witek, col. 12, lines 27-37] According to the teachings of Witek, during this first part of the search process, only the category and subcategory search methodologies are available. No other search methodologies are available during the first part of the search process. Witek then teaches that the second part of the search process includes entering a formal record selection query containing the specific parameters for the ad records the user wishes to see. [Witek, col. 17, lines 42-50] No other search methodologies are available during the second part of the search process. Witek does not teach that during the first part or the second part of the search process, each of the search methodologies are available. Accordingly, Witek does not teach that each utilization of the search module includes the availability of all types of available searches.

Witek does not teach a dichotomous key search. Further, Witek does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, Witek does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database. As discussed above, Witek teaches that during the first part of the search process only the category and subcategory are specified and during the second part of the search process only searches based on entered parameters are available.

Doan teaches a hierarchical query syntax for inquiring and selecting among database objects. Doan does not teach a dichotomous key search. Further, Doan does not teach performing a search in which for any given searching step, at any location within the database,

four different search methodologies are available to be used to perform the search. Specifically, Doan does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database.

Botto teaches a transmission system and modem utilizing coded modulation. Botto appears to be cited because of its teaching of a dichotomous key search. Botto also does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search.

Furthermore, the zone search taught in Botto is completely different from the dichotomous search claimed in the present invention. Botto, teaches the zone search receiving only one input, R, having coordinates  $X_r'$  and  $Y_r'$ , and then traversing through a number of binary forks using that same singular input to determine the path. [Botto, col. 4, lines 19-28] The zone searching module determines the reference zone quadrant to which R belongs by dichotomy according to the algorithm of Fig. 5. [Botto, col. 5, lines 26-28] The algorithm has set values to compare with the input value and ultimately reaches the desired zone. [Botto, col. 5, lines 30-38] However, the dichotomous search of the present invention requires multiple inputs generally to reach the desired destination although each are input separately as a user traverses through the tree. Using an example of the present invention, a user would have to answer a series of questions, by inputting data multiple times, to complete the sequence, "Everything → Organic → Vegetable → Plant → Tree → Evergreen → Tuber-Leaf → Juniper". [Present Invention, Specification, page 29, line 27] The series of questions would be along the lines of "Organic or Inorganic?...Vegetable or fruit?...etc." Based on each individual answer, to each individual question, the user would traverse down the path accordingly. On the other hand, Botto only receives one input and then based on that one input from a processing module, not a user, traverses through its entire structure depending on how that one input compares to pre-set comparators. It is impossible to go from "Everything" to "Juniper" with only one input unless you know what you are searching for is "Juniper" from the beginning, and then a user might as well use a different search such as a keyword search. Perhaps a more clear example is when a person has symptoms for a disease, but is not sure what the ultimate disease is. The user would answer a series of questions and ultimately arrive at whatever the disease is. This is not possible using the teachings of Botto. The point of the dichotomous search is to allow a user to navigate from general topics like "Organic" and "Fever" to more specific topics such as "Juniper" and

“Flu” in multiple steps. Such a search cannot be performed with the zone searching module taught in Botto.

There is no motivation to warrant the combination of Witek, Doan and Botto. There is no hint, teaching or suggestion in either of Witek, Doan or Botto to warrant their combination.

This is a classic case of impermissibly using hindsight to make a rejection based on obviousness. The Court of Appeals for the Federal Circuit has stated that “it is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” In Re Fritch, 972 F.2d, 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). As discussed above, neither Witek, Doan, Botto not their combination teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search, as claimed. As recognized within the Office Action, Witek does not teach a dichotomous key search. However, within the Office Action, it is stated that

[i]t would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Botto into the invention of Witek because the combination would reduce the memory access when using binary search, and providing user more search methodologies. [Office Action, page 6]

It is only with the benefit of the present claims, as a “template” that there is any motivation to combine the data modem of Botto with the classified ad system of Witek. No such motivation can be found in the teachings of either of the references. To conclude that the combination of Witek, Doan and Botto is obvious, based on the teachings of these references, is to use hindsight based on the teachings of the present invention and to read much more into Witek, Doan and Botto than their actual teachings. This is simply not permissible based on the directive from the Court of Appeals for the Federal Circuit.

It is well settled that to establish a *prima facie* case of obviousness, three basic criteria must be met:

- 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) there must be a reasonable expectation of success; and
- 3) the prior art reference, or references, must teach or suggest all the claim limitations. MPEP § 2143.

The burden of establishing a *prima facie* case of obviousness based on the teachings of Witek, Doan and Botto has not been met within the Office Action.

There is no motivation to combine the teachings of Botto with Witek and Doan. Botto relates to a transmission system and modem utilizing coded modulation. Botto teaches that the zone searching module determines the zone of the reference quadrant by dichotomy according to an algorithm. [Botto, col. 5, lines 26-29] Botto is only cited because it teaches searching by dichotomy. There is no hint, teaching or suggestion in either Botto, Witek or Doan to motivate one skilled in the art to combine their teachings. It is only with the benefit of the presently claimed invention as a “template” that one would consider combining the dichotomous search of Botto with the classified ad system of Witek and the hierarchical query syntax of Doan.

According to In re Grasselli, 713 F.2d 731, 743, (Fed. Cir. 1983), it is improper to combine references where the references teach away from their combination. Witek as described above teaches a system and method so Internet users can connect to a newspaper web server and central web application server to search for and obtain classified ads. To search the ad records, the search process is divided into two principle parts. The first part includes a system entry and pre-selection sequence, and the second part includes a record selection sequence. [Witek, col. 12, lines 10-13] More specifically, in the first part the user enters the system and specifies the category of classified ads to be searched. Thereafter, as the user navigates to the respective selected category, the user further specifies a subcategory for the particular category selected. Hence, a user enters multiple inputs to ultimately find the ad for which she is searching. Botto, however, teaches only one input, R, having coordinates, Xr’ and Yr’. [Botto, col. 4, lines 19-28] The zone searching module determines the reference zone quadrant to which R belongs by dichotomy according to the algorithm of Fig. 5. [Botto, col. 5, lines 26-28 and Fig. 5] The algorithm has set values to compare the input value with and ultimately reaches the desired zone. [Botto, col. 5, lines 30-38] Hence, it is improper to combine these references as they are utilized in completely different manners. Witek requires a user to continue searching by inputting multiple search data in first and second parts to narrow down the search; whereas, Botto takes only one input, not by a user, and uses an algorithm to reach an end point. Witek and Botto teach away from each other and should not have been combined.

Furthermore, “[t]he test for an implicit showing [of a teaching, suggestion or motivation] is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” In re Kotzab, 217 F.3d 1365, 1370 (Fed. Cir. 2000). Moreover, “particular findings must be

made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” Kotzab at 1371.

Within In re Kotzab, the claims focused on an injection molding method using a single temperature sensor to control a plurality of flow control valves. The reference taught a multizone device having multiple sensors, each of which controlled an associated flow control valve, and also taught that one system may be used to control a number of valves. The court found there insufficient evidence to show that one sensor was the same as one system. Although the control of multiple valves by a single sensor rather than by multiple sensors was a "technologically simple concept," there was no finding "as to the specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve. Kotzab at 1371.

In the present case, as in Kotzab, there are no showings of particular findings that a skilled artisan, with no knowledge of the claimed invention, would have selected the components from Witek, Doan and Botto for combination in the manner claimed. As discussed above, Witek teaches a system and method in which Internet users can connect to a newspaper web server and central web application server to search for and obtain classified ads. Witek implements specified search methods but does not implement a dichotomous search. Botto is directed to the internal mechanism of a modem for determining a zone by using a form of a search by dichotomy. Botto never hints or suggests using the search with a web server. A modem is not used interchangeably with a web server. This is comparable to the court in Kotzab rejecting the argument that one sensor was the same as one system and stating that there was no finding as to a specific understanding or principle that would have provided the motivation to use a single sensor as a system to control more than one valve. The court did not allow a system to be interchanged with a sensor nor should a modem be interchanged with a web server. To conclude that this is obvious based on the teachings of these references, is to use hindsight based on the teachings of the present invention and to read much more into Witek, Doan and Botto than their actual teachings.

Even if considered proper, the combination of Witek, Doan and Botto does not teach a dichotomous key search as implemented in the present invention. Further, neither Witek, Doan, Botto nor their combination teaches performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, neither Witek, Doan, Botto nor their combination teaches that any of a keyword search, hierarchical search, dichotomous key search and parametric search can

be used at any location within the database. Further, neither Witek, Doan, Botto nor their combination teaches that each access of a searchable database includes availability of each search. Botto only teaches dichotomy; Doan teaches a hierarchical query syntax for inquiring and selecting among database objects and Witek teaches that only category and subcategory are determined in the first part and only searches based on entered parameters are available in the second part.

In contrast to the teachings of Witek, Doan and Botto, the method of and apparatus for performing a research task of the present invention, interchangeably utilizes a multitude of search methodologies. Specifically, utilizing a search module, a user is able to selectively utilize one or more search methodologies including keyword search, hierarchical search, dichotomous key search and parametric search to correlate a search criteria to a searchable database for generating one or more matching items. It is further taught within the present specification that

[a]t each node within the tree, the user is presented with the option of using any one or combinations of the four search methodologies utilized by the research system. The four search methodologies are keyword search, hierarchical tree search, dichotomous key search, and parametric search. Regardless as to which search methodology or search methodologies are used to reach a particular node, the user can utilize any of the four search methodologies to further refine the search and move further down the directory tree structure. The user may also navigate back up the directory tree structure to a higher node, and once again have the option to use any of the four search methodologies to refine the search from the current node and move further down the directory tree structure.  
[Present Specification, page 38, line 23 - page 39, line 4].

Therefore, a user is able to navigate the directory tree structure, utilizing any one of the four search methodologies in any combination to reach the desired result. As discussed above, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

Within the Response to Arguments section of the Office Action, it is stated that

Applicant does not clearly claim that “at any step location within the database, four different methodologies are available to be used to perform the search.” Instead, Applicant only claims that “utilizing a selective one or more search methodologies . . . wherein each utilization includes availability of each search.” Therefore, if the Witek discloses one of the methods and the method is available

for the search process, then the Witek still can apply to the invention. [Office Action, page 9]

The Applicant respectfully disagrees. It is specified within the claims that the search module includes a keyword search, a hierarchical search, a dichotomous key search and a parametric search. This limitation requires that *all four* of the search capabilities are present within the search module. In order to properly be applied to the claimed invention, the cited reference(s) must teach or make obvious *all four* of the search capabilities. It is further specified within the claims that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search. Utilization is defined as “to put to use for a certain purpose.” [The American Heritage Dictionary] Just as taught within the specification, the limitation that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search, specifies that *every time* the search module is used, each of the four search capabilities (keyword search, hierarchical search, dichotomous key search and parametric search) are available. Neither Witek, Doan, Botto nor their combination teach such a search module. As discussed above, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

The independent Claim 1 is directed to a method of accessing information within an electronic system. The method of claim 1 comprises formatting a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, accessing a node within the directory tree structure using a query language string, wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure and manually traversing the navigation path through the directory tree structure to access the node utilizing *a search module including keyword search, hierarchical search, dichotomous key search, and parametric search, wherein each utilization of the search module includes availability of each search.* As discussed above,



neither Witek, Doan, Botto nor their combination teach a dichotomous key search as implemented in the present invention. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of a search module includes availability of each search. Botto only teaches dichotomy. Doan only teaches a hierarchical query syntax for inquiring and selecting among database objects. Witek teaches that only category and subcategory are determined in the first part and only search based on entered parameters as available in the second part. For at least these reasons, the independent Claim 1 is allowable over Witek, Doan, Botto and their combination.

Claims 6-10 depend on the independent Claim 1. As described above, the independent Claim 1 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 6-10 are all also allowable as being dependent on an allowable base claim.

The independent Claim 11 is directed to a research system for accessing information within an electronic system. The research system of Claim 11 comprises means for formatting a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, means for accessing a node within the directory tree structure using a query language string, wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure and means for manually traversing the navigation path through the directory tree structure to access the node utilizing *a search module including keyword search, hierarchical search, dichotomous key search, and parametric search, wherein each utilization of the search module includes availability of each search.* As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search as implemented in the present invention. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of a search module includes availability of each search. Botto only teaches dichotomy. Doan only teaches a hierarchical query syntax for inquiring and selecting among database objects. Witek teaches that only category and subcategory are determined in the first part and only search based on entered parameters as available in the second part. For at least these reasons, the independent Claim 11 is allowable over Witek, Doan, Botto and their combination.

Claims 16-20 depend on the independent Claim 11. As described above, the independent Claim 11 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 16-20 are all also allowable as being dependent on an allowable base claim.

The independent Claim 21 is directed to a research system for accessing information within an electronic system. The research system of claim 21 comprises a research server configured to format a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and to access a node within the directory tree structure using a query language string, wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure and further wherein the research server is utilized by a user to manually traverse the navigation path through the directory tree structure to access the node by utilizing *a search module including keyword search, hierarchical search, dichotomous key search, and parametric search, wherein each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search as implemented in the present invention. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of a search module includes availability of each search. Botto only teaches dichotomy. Doan only teaches a hierarchical query syntax for inquiring and selecting among database objects. Witek teaches that only category and subcategory are determined in the first part and only search based on entered parameters as available in the second part. For at least these reasons, the independent Claim 21 is allowable over Witek, Doan, Botto and their combination.

Claims 26-30 depend on the independent Claim 21. As described above, the independent Claim 21 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 26-30 are all also allowable as being dependent on an allowable base claim.

The independent Claim 31 is directed to a network of devices for accessing information within an electronic system. The network of devices of claim 31 comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format a searchable database within the

electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and to access a node within the directory tree structure using a query language string, wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure, wherein the research server is utilized by a user to manually traverse the navigation path through the directory tree structure to access the node by utilizing *a search module including keyword search, hierarchical search, dichotomous key search, and parametric search, wherein each utilization of the search module includes availability of each search.* As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search as implemented in the present invention. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of a search module includes availability of each search. Botto only teaches dichotomy. Doan only teaches a hierarchical query syntax for inquiring and selecting among database objects. Witek teaches that only category and subcategory are determined in the first part and only search based on entered parameters as available in the second part. For at least these reasons, the independent Claim 31 is allowable over Witek, Doan, Botto and their combination.

Claims 36-38 depend on the independent Claim 31. As described above, the independent Claim 31 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 36-38 are all also allowable as being dependent on an allowable base claim.

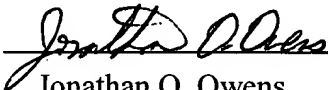
Within the Office Action, Claims 4, 5, 14, 15, 24, 25, 34 and 35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Witek in view of Doan and Botto and further in view of U.S. Patent No. 6,292,796 issued to Drucker et al. (hereinafter "Drucker").

Claims 4 and 5 are dependent on the independent Claim 1. Claims 14 and 15 are dependent on the independent Claim 11. Claims 24 and 25 are dependent on the independent Claim 21. Claims 34 and 35 are dependent on the independent Claim 31. As discussed above, the independent Claims 1, 11, 21, and 31 are each allowable over the teachings of Witek, Doan, Botto and their combination. Accordingly, Claims 4, 5, 14, 15, 24, 25, 34 and 35 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicant respectfully submits that Claims 1, 4-11, 14-21, 24-31 and 34-38 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,  
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